PIREPS

Left - Southwest Airlines Captain Rocky Calkins, Destination 225° Program Coordinator.

Right - Jamie Walker, Jet Linx Aviation, Rebecca Lutte and Scott Vlasek UNO Aviation Institute, Rocky Calkins, Southwest Airlines, and Scott Tarry and Skip Bailey, UNO Aviation Institute

Destination 225° Southwest Airlines Program Takes Off

By Rebecca Lutte and Scott Vlasek

Destination 225°! The next time you look at a compass, look at heading 225° and you will see yourself pointed to the southwest. Destination 225° is a new program launched August 1, 2019, by Southwest Airlines in partnership with Jet Linx Aviation and the University of Nebraska at Omaha. Destination 225° provides multiple pathways for prospective pilots to become hired at Southwest Airlines.

The University of Nebraska at Omaha is one of four collegiate programs in the country selected to be a part of this new and exciting program. This pathway is designed for collegiate aviators whose goal is to fly for Southwest Airlines. Southwest's vision is to ease the barriers to becoming a pilot and guide those who are selected to the University pathway in their next steps: gaining relevant flight experience with a Southwest Airlines planned partner like Jet Linx Aviation, in order to put themselves in position to join the ranks as a Southwest Airlines Pilot. Destination 225° is designed to be highly accessible, cost-effective and innovative.

Career Pipeline Programs

The UNO Aviation Institute professional pilot program has experienced significant growth, particularly in the last three years, as demand for airline pilots continues to increase. Global passenger traffic is forecast to double over the next 20 years according to the International Air Transport Association (IATA). A recent Boeing forecast predicts the industry will need 790,000 new pilots worldwide by 2036 to meet demand. That would require the industry to produce one new pilot every 13 minutes. Given the industry pilot supply challenges, many airlines are partnering with university aviation programs to create career pipeline programs. This allows airlines to attract top talent in a market where competition is strong. It also provides benefits for students who now have multiple options for airline

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cadet programs. UNO offers multiple airline pathway opportunities for their students including programs with Republic Airways, Envoy Air, Mesa Airlines, and ExpressJet. Destination 225° is the first such program for UNO with a major airline and a Part 135 Charter Operator. Dr. Scott Tarry, Director of the Aviation Institute said, "Destination 225° is truly the first partnership of its kind for the aviation industry and we are confident this initiative will have a positive impact on the UNO Aviation Institute and our students. The Destination 225° University Pathway and inter-industry collaboration with operators such as Jet Linx is incredibly well-structured, and we will undoubtedly strengthen our program, ultimately attracting more students and increasing enrollment."

Participants who are selected for the Destination 225° program will receive a Southwest mentor during their years of training, be invited to Southwest for training activities and events, and have the opportunity to apply for selection as a Southwest First Officer. According to Southwest Airlines, "Participants will go through comprehensive training and a continuous evaluation process intended to enable them to meet, or potentially exceed, Southwest's competitive hiring qualifications. There is no cost to apply to the program; however, candidates advancing through a training program and the selection process will be responsible for all costs incurred." "Destination 225° will offer pathways for the development of world-class pilots who are ready to fly 'The Southwest Way,'" said Alan Kasher, Vice President of Flight Operations. "This comprehensive training program is designed to make becoming a Southwest First Officer an attainable goal for passionate, highly-skilled individuals.

UNO was tapped by Jet Linx and Southwest to participate in the new program due to the tremendous history and positive working relationship already in place between Jet Linx and UNO – a partnership that includes the annual Jet Linx Aviation Institute Golf Classic, which has raised over $260,000 for aviation student scholarships and support to date. "We are proud of the strong, local ties between UNO and Jet Linx," noted Jamie Walker, President and CEO of Jet Linx Aviation. "There are a large number of UNO Aviation Institute graduates on our National Operations Center team, and many go on to fly for us as well. The Destination 225° program offers a new, more formalized path for pilots from their student careers at UNO to professional careers at Jet Linx, and later a connection to a career with Southwest. We are confident that this defined program, one shared by respected companies in the industry, will attract new students to the field of aviation."

Jet Linx Aviation and Southwest Airlines are two of the top companies within their segments of the aviation industry. For the Aviation Institute to be selected as a partner with Destination 225° speaks highly to the quality of education and training being provided at UNO. This program provides new direction and opportunity to the students of the Aviation Institute. It brings together academia, on-demand air transportation, and commercial aviation all under one program. There has never been a better time to become a professional pilot. With the addition of Destination 225°, there have never been more opportunities for professional pilot students at the University of Nebraska at Omaha Aviation Institute. It's a great day to be a Maverick! ■

Submit Project of the Year Nominations

The NDOT Division of Aeronautics is excited to resurrect the Project of the Year award, however, we need your help. If you are aware of a project completed in 2019, either at your airport or another Nebraska airport, that has benefited aviation in Nebraska, please nominate the project.

Nominations can be sent to Thomas at thomas.jacobson@nebraska.gov. Include the project location, short description of the project (2 to 3 sentences), and a brief explanation of project benefits. Photographs are helpful, but not required. Please submit nominations prior to December 13, 2019. ■

The 2016 Project of the Year was at Farington Field Airport in Auburn, Nebraska.

In the Red

By Daniel Petersen

The other day while taxiing out to Runway 10L at Chicago O'Hare and approaching the number "1" spot, we received a message over the printer. *Yes, we have printers in the cockpit now!* The message said that our load closeout had been canceled. The load closeout tells us the trim setting, the passenger count, and the zero fuel weight so that we can tell what the aircraft weighs. This enables us to input the data into the Flight Management System (FMS) to be sure we have the correct performance information for the runway that we are going to use.

Shortly after the first message printed, we received the corrected load closeout. As the First Officer (FO) ripped the new one off of the printer, tower cleared us to line up and wait. The FO looked at me and said he would be ready. I said, "Why rush" and asked him to tell the tower that we were not ready yet and to find a place for us to park out of the way. I wanted to do this so that we would have time to make sure we had everything set up and the "Before Takeoff Checklist" was complete.

As pilots we are very mission oriented and want to get the job done as expeditiously as possible, but this can cause us to rush and omit very crucial tasks. Our airline, and I'm sure every airline today, uses some sort of risk management tool. Our airline uses the Threat Error Management Tool (TEM). To simplify it, the TEM uses color codes – green, yellow, and red. We always want to operate in the green. In the green we are fully up to speed, comfortable and have full situational awareness. When we start to lose that, we are moving into the yellow or red, and have lost situational awareness.

That day, I could tell we were both in the yellow, and if we taxied onto the runway we could very quickly find ourselves in the red. The way we get back into the green is to use resources such as policies, regulations, other crew members, air traffic control, automation, checklists, knowledge, aircraft handling and skill, depending on the circumstances. Our resource was time, therefore we requested to park the aircraft somewhere to work out the change.

General aviation pilots also can, and should, use this tool. During your operation, always ask yourself, "Do I feel good about this, am I comfortable, is this right, or am I starting to get into the yellow or red?" Stay in the green and if you are not, do what it takes to get back in the green. ■

Brick One Arrival

By David Moll

While doing some contract flying for a friend of mine, one of his "before landing" briefings included the phrase: "This will be a brick one arrival." We were going into a short runway for the Hawker we were flying, and I already knew this was his way of saying his aiming point was approximately 100 feet from the end. At breakfast, he and I talked about this phrase, at which time he disclosed the paint scrape on the right wing was from hitting a tree branch on another short runway approach.

Reading a National Transportation Safety Board (NTSB) accident report, a flight department I was somewhat familiar with destroyed a Gulfstream 4 on a landing short event at the Peachtree DeKalb (PDK) airport in Atlanta, Georgia. I was based at PDK for over 20 years, so I know its runways very well. When the G4 arrived at the airport, the long runway (6,001 feet) was closed for minor maintenance and would open up in 20 minutes. Therefore, the crew elected to use a shorter runway that was 3,967 feet long, a runway I had used numerous times.

The pilot landed about 5-10 feet short of the runway, which is very unprofessional at best, but what destroyed the airplane was the lip of the runway wasn't even close to being level with the dirt. When the tires hit the runway lip, the shock was so great the airframe bent.

Now on the opposite end of the landing short issue, is landing long. This is the case of the NASCAR star whose pilots crashed a Cessna Citation trying to land on a 4,529-foot runway. I emphasize "trying" to land, because the NTSB report said on the third bounce, which happened about 1,000 feet from the departure end of the runway, the right gear collapsed. The pilots claimed after the second bounce they attempted a go-around but the engines didn't respond well, causing the third bounce. So, after floating down the runway over 60-70% of its total length, bouncing twice, only then was a go-around considered? That third bounce must have registered on the Richter scale.

My point is not to humiliate four pilots, because they've done a great job all by themselves. My point is this: What was the second pilot saying in both of these major mistakes, or was he just sitting silent? Open, two-way crew communication and mutual trust create the cornerstone of safety. This communication extends to weather analysis, Notice to Airmen (NOTAMS), approach and departure procedures, landing profiles, programming navigation equipment or cruise performance so everybody in the cockpit knows what is going on and has a voice. This voice even applies during bad landings. Does a brick one arrival truly mean the first foot, or 100 feet, or with three Visual Approach Slope Indicator (VASI) lights red and one white? Communicate! ■

The Nebraska Air Trail

By Yasmina Platt

Some pilots need reasons to fly and I can always find good reasons! The idea of the Nebraska Air Trail is to bring flying and tourism together. It allows us to not only enjoy the friendly sky and the wonderful views it provides, but also to land at some neat airports, visit some cool towns, explore the outdoors, try some other aviation and non-aviation activities, eat at some good airport restaurants, stay at unique hotels or camp out under the wing, and learn some history lessons among other things.

Nebraska encompasses the prairies of the Great Plains, the towering dunes of the Sandhills, and the Panhandle's dramatic rock formations. While the Omaha skyline surprises visitors with its big city feel, part of the real beauty of Nebraska lies in its rural areas (especially while watching a sunset) that spread across the rolling plains.

The proposed route around the "Cornhusker State" is a circular one to make it easier to follow. While many possible stops are identified, you can start/stop this route from any airport and fly it in any order or direction you prefer. You can also skip and add other stops as you please; these are just suggestions.

In its entirety, the state of Nebraska has a far more dynamic topography than one would expect. While it may fit the mark of a "fly-over state" from FL350, it reveals at least four different types of terrain that stand out to those of us at lower altitudes.

The eastern part of the state starts with bluffs along the Missouri River that turn into the rolling hills of the "Bohemian Alps" west of Lincoln. If one flies north or south along the western edge of those hills, you can see where the edge of an ancient glacier once flowed (and flattened the middle part of the state). The mid-portion of Nebraska is flat plains; however, there are numerous rivers running through the entirety of the state, which are interesting to follow.

The Sandhills territory starts about the midway point through the state, with hundreds of bodies of water filled by the Ogallala Aquifer. The western portion (Panhandle) has the greatest amount of hills, bluffs, and the beginnings of mountainous terrain. Whether flown from east to west, or west to east, the Panhandle of Nebraska is a striking beginning or end of an enjoyable air tour of this great state.

To read the details of the Nebraska Air Trail or any of the other air trails, visit www.airtrails.weebly.com. Fly safe and fly often! ■

NASAO Commends U.S. DOT's $986 Million in Grants to Nation's Airport Infrastructure

On September 23, U.S. Department of Transportation Secretary Elaine L. Chao announced that the Department will award $986 million in infrastructure grants to 354 airports spanning 44 states, Puerto Rico and Micronesia. Nebraska airports received 27 of the supplemental discretionary grants. The grants are the fifth round of distribution from the FAA's Airport Improvement Program (AIP) funding. In total, the AIP funding allotment is $3.18 billion for airports across the U.S.

The grants will support multiple infrastructure projects, including runway reconstruction and rehabilitation, noise mitigation, emissions reduction, building of firefighting facilities, and maintenance of terminals, taxiways and aprons. "Infrastructure projects funded by these grants will advance safety, improve travel, generate jobs and provide other economic benefits for local communities," said Secretary Chao.

"Our members thank Secretary Chao for her continued dedication to improving airport infrastructure. Enhanced airport infrastructure across the nation improves quality of life and has a direct, positive, impact on the economic well-being of the U.S.," said Shelly Simi, President & CEO of the National Association of State Aviation Officials (NASAO). ■

Nautical Miles or Statute Miles?

By David Morris

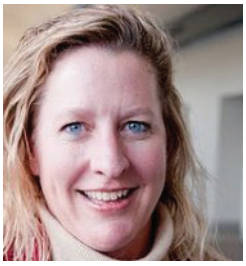
Ever wonder why aviation uses nautical miles, instead of the more familiar statute miles? Well, in the olden days of sailing ships, the earth was round (spherical). Cartographers decided to divide the earth into lines of longitude equaling 360 degrees. They started with Zero Meridian and decided to place it in Greenwich, England and went east and west to the 180 degree Meridian on the other side of the world. Then they decided to scale north and south around the equator (zero degrees) to ninety degrees north and south latitude.

The difference between longitude lines and latitude lines is that longitude lines converge as they approach the poles. Latitude lines are equidistant apart. As ships traveled across the expanses of the oceans, it was difficult to measure distances in the traditional English fashion of the 5,280-foot-mile, so some sailor calculated a way to use minutes of latitude to measure distance.

Each minute of latitude equaled one nautical mile and could be used to be more representative of a ship's location using the navigation equipment of the day. Thus, the nautical mile was created. Aviation adopted this method, some presume, because it was the most representative method of determining location when flying over the expanses of airspace. And just so you know, the nautical mile is considered by most to be 6,076 feet + 1.386 inches in length. ■

Director's View

Grow Networks and Study Industry Advances



Ann Richart

In September I had the privilege of speaking at two conferences. The General Aviation Conference put on by the American Association of Airport Executives was held in Minneapolis, MN at the same time that the National Association of State Aviation Officials had their annual conference down the Mississippi River in St. Paul. With only four months under my belt as your Aeronautics Director, it was really a privilege to be asked to address these groups.

The topics I presented are quite different and I don't claim to be an expert in either one. But, one reason I love my job is that we are given new challenges every day. Being able to address new situations, develop an appropriate response, and then share what we've learned with others is what makes aviation professionals a real brotherhood.

I spoke to the state aviation directors about a pending Federal Aviation Administration (FAA) requirement for airports to start using a specific approach called Safety Management System to track and improve safety. The next day I addressed the General Aviation (GA) airport managers about new information coming out about the toxicity of the foam FAA requires us to use to put out aircraft fires. I also sat in on sessions about the automated (Notices to Airmen) NOTAM system, the latest developments on unmanned aerial technologies, the FAA's non-Federal NAVAIDs program, initiatives to support air service to small communities, and winter operations.

Attending these types of conferences is a great way to maintain currency in a field that is always changing. Maybe more importantly, is the opportunity to meet other aviation professionals from outside of our own little worlds. I collect business cards at these events and stay in touch with these newfound colleagues. If I'm confronted with a new situation, I have lots of friends that I can reach out to for advice. It is often easy to skip industry conferences by citing time constraints or costs. I firmly believe that the rewards gained by learning about the latest industry developments and growing your network is well worth the time and expense.

The Nebraska Aviation Symposium is scheduled for January 22 and 23 in Kearney. This will be another great opportunity for us to share with each other and work together to make Nebraska's aviation system even stronger. I hope to see you there! ■

Preparing for Checkrides

By Lee Svoboda

It has been a busy summer, with many aviation students receiving their pilot certificates. During that timeframe, I have observed a number of checkride tasks that require our attention to ensure we are producing safe, competent, proficient and good risk management pilots.

The big items for the ground portion of the test are cross-country flight planning, national airspace system, performance and limitations, operation of systems, and risk management. If an applicant shows up and is capable of demonstrating knowledge and proficiency in these five tasks, there is a high probability that the ground portion will go well.

As for airborne tasks, the "power-off stall" gives me some concern. During this maneuver we are in landing configuration, simulating approaching to land, being a bit low on final and pitching up to extend our glide without adding power. Most of the time the applicant sets it up correctly; however, when it comes time to extend the glide, applicants are pitching the nose up to as much as 10/12 degrees nose up.

Sometimes this produces interesting stall recovery techniques. I do not believe we would pitch that high on final to land. Maybe we should be more realistic when it is time for simulating extending the glide and teach students to merely zero the vertical speed, which will be a lot less pitch than 10/12 degrees nose up.

Commercial pilot applicants show up aware of the landing criteria requirements. However, I get the "deer in the headlights stare" when I mention landing criteria to private pilot applicants. When I ask where on the runway is their proposed landing point, I get stuttering and uncertainty. They are not aware that a centerline stripe is 120 feet long and the gap is 80 feet long, making it easy for an examiner to determine if an applicant makes the "beyond and within 400 and 200 feet" criteria. Instructors, your test prep must make private pilot applicants aware of the landing criteria so they can practice it during their solo time.

Instructors, there is one other principle that you must teach your students about checkrides. That is the 3D principle. While taking a checkride an applicant shall not do anything, Dumb, Different, or Dangerous. *FLY SAFE* ■

New Requirements for Recreational Drone Operators

Reprinted from FAA Safety Briefing September/October 2019

The landscape for recreational operators is drastically changing as the Federal Aviation Administration (FAA) is taking several measures to adjust to the realities of a new world where over a million drone operators are entering the National Airspace System (NAS) in the U.S. alone. These new steps are consistent with the requirements of Section 349 of the FAA Reauthorization Act of 2018, and they will make the NAS safer, institute an aeronautical knowledge and safety test for recreational fliers, and open the Low Altitude Authorization Notification Capability (LAANC) for this expanding user group.

While recreational drones can still fly below 400 feet in uncontrolled airspace without specific certification or permission from the FAA, drone operators must still register their aircraft with the FAA. Operators are responsible for complying with all FAA airspace restrictions and prohibitions. Under Section 349, recreational operators must obtain an airspace authorization to fly in controlled airspace. ATC facilities will no longer accept requests to operate recreational drones in controlled airspace on a case-by-case basis.

The FAA has recently upgraded LAANC to enable recreational flyers to obtain automated authorization for controlled airspace flights. Go to faa.gov/go/laanc for updates. Additionally, the FAA is exploring upgrades to FAADroneZone.faa.gov to enable access to recreational flyers.

The 2018 Act also requires recreational flyers to pass an aeronautical knowledge and safety test before accessing the NAS. The agency is currently consulting with various UAS stakeholders to develop that test, which will be administered electronically.

For more details on these new changes, go to faa.gov/uas/recreational_fliers. ■

Think Drone Safety As We Share the Sky

By David Morris

The Federal Aviation Administration (FAA) is encouraging the drone community to help spread the word on drone safety with the first National Drone Safety Awareness Week taking place November 4-10, 2019. The FAA's highest priority is to ensure the safety of the National Airspace System (NAS) and the FAA reminds drone pilots and stakeholders that airspace safety is everyone's responsibility.

During this week-long campaign, key sectors of the drone community – local governments, municipalities and recreational flyers – will highlight their work on drones, engage the public in activities related to drones, and kick off new safety initiatives. As we integrate drones into the NAS, the FAA wants to do all that it can to ensure that these new operators are familiar with and adhere to the safety culture. Leading up to National Drone Safety Awareness Week, the FAA will provide leadership and support with downloadable materials from the FAA website.

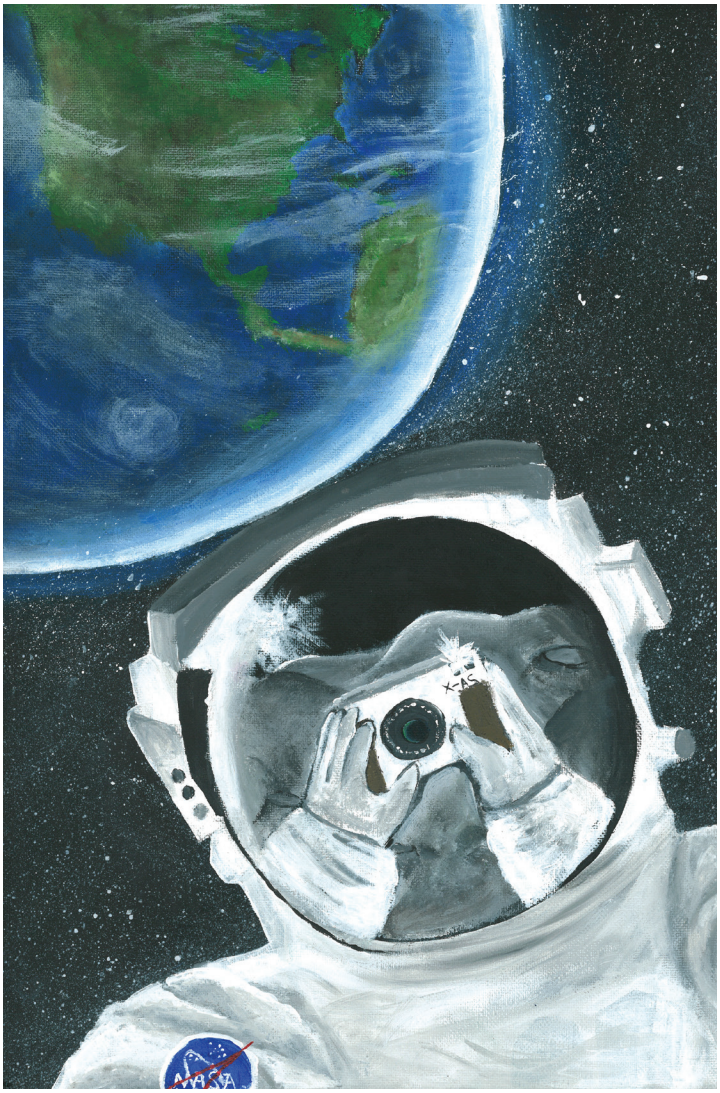
Aviation Art Contest Now Open for Ages 6 through 17

By David Morris

The dream to fly is thousands of years old. The ancient stories from around the world of those who wanted to take flight started to become reality in the late 1800s. Each generation has learned what is possible while holding true to the love of flight that is in the heart of all aviators.

The first airplanes were made of cloth and wood, and those early crafts were powered by engines that produced around 12 horsepower. While the physics of flight remains the same, the technology is always advancing. Aviators have shown what is possible today. What does the future hold? Where will the young aviation dreamers of today lead us?

Youngsters ages 6 through 17, now is the time to get out your favorite artist supplies and give free rein to your imagination for the 2020 Aviation Art Contest. Create a poster that combines the flights of the past with the dreams of the future for this year's theme "Flying Yesterday and Tomorrow." For further details and/or an entry brochure, contact David Morris at the NDOT – Division of Aeronautics david.morris@nebraska.gov or call 402-471-2371. All entries must be postmarked no later than January 29, 2020. ■



From Aviation International News (September 2019)

The Air Line Pilots Association has published a white paper decrying any effort to permit single-pilot airline operations. "Those promoting single-pilot operations argue that reducing crew size will lead to cost savings," the paper stated. "However, the current body of evidence and experience, including more than a decade of study by the National Aeronautics and Space Administration (NASA) and the Federal Aviation Administration (FAA), shows that the safety risks and challenges associated with single-pilot operations far outweigh its potential benefits."

Pilot incapacitation is the key issue. The association refers to published FAA data revealing that there were 262 occurrences of pilot incapacitation in single-pilot Part 91 operations from January 1980 through July 1989, resulting in 180 fatalities. During the same period, there were 32 occurrences of pilot incapacitation in single-pilot Part 135 operations, resulting in 32 fatalities. In Part 121 operations over the same period, there were 51 pilot incapacitation occurrences that resulted in normal aircraft recovery by the other pilot.

Although this data is 30 to 40 years old, the association also cited more recent data. According to the Australian Transport Safety Bureau, from 2010 to 2015 there were 23 pilot incapacitation occurrences per year on average, 75 percent of them happening in high-capacity air transport operations. With multi-pilot crews, incapacitation had minimal effect on the flight. But for single-pilot general aviation operations, incapacitation often meant returning to the departure airport or crashing. ■

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New Procedure for IFR Clearances

By David Morris

The Federal Aviation Administration's (FAA) Clearance Relay Initiative has changed the way pilots obtain their Instrument Flight Rules (IFR) clearances at non-towered airports. Pilots calling for a clearance on the telephone can obtain their clearance by calling the overlying Air Route Traffic Control Center (ARTCC) or an Approach Control facility. The appropriate Clearance Delivery telephone number is now included in the Communications section of the Chart Supplement. The Flight Service facility will continue to relay clearances over the Remote Communications Outlets (RCO) located at select airports, along with the relay and cancellation of IFR clearances.

AIRPORT OF THE YEAR NOMINATIONS

The NDOT-Division of Aeronautics is seeking nominations for **Airport of the Year 2019.** For additional information & application, contact David Morris at 402-471-2371 or david.morris@nebraska.gov